



U.S. Government

Indian Ocean Tsunami Warning System Program

What is the US IOTWS program about?

In response to the December 2004 Tsunami disaster, the United States government (US) is implementing a two-year, \$16.6 million program to provide technical assistance in the development of an Indian Ocean Tsunami Warning System (IOTWS). We will not be developing the IOTWS for the region, but rather supporting the combined efforts of the international community and national governments in the region to develop an integrated system.

This program will provide technical assistance to the region using an integrated, “end-to-end” approach. This means that the system will address all stages of early warning from initial hazard detection to delivering warning messages to coastal communities that are prepared to respond. In addition, because tsunami detection and warning systems are similar to those for other hazards, the US approach will be “multi-hazard”, simultaneously addressing warning system requirements for cyclones, sea swells, and related risks.

Who is involved?

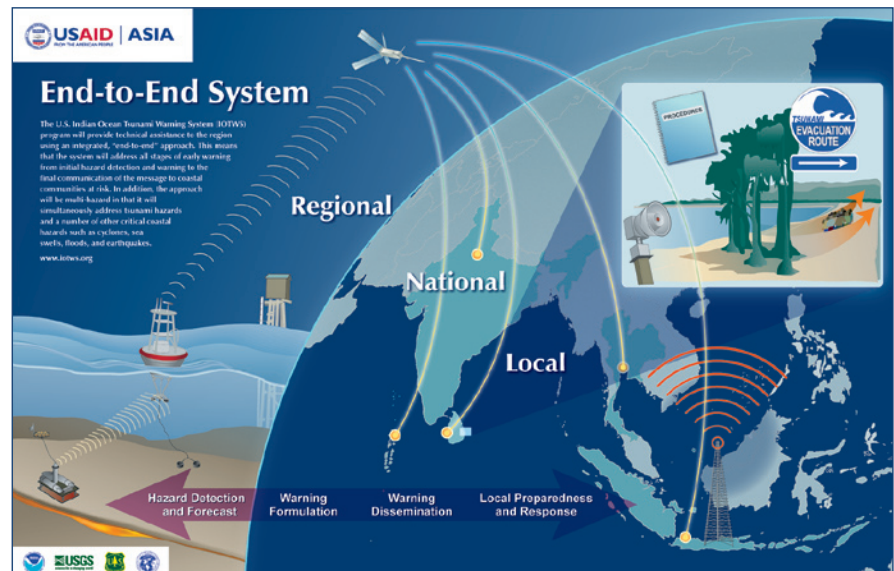
The U.S. program will directly support the ongoing international efforts to develop a regional system under the auspices of the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The program will involve a number of key U.S. agencies, each bringing specialized expertise and access to resources for the program. These include the U.S. Agency for International Development (USAID), National Oceanic and Atmospheric Administration (NOAA), U.S. Geological Survey (USGS), U.S. Department of Agriculture Forest Service (USFS), U.S. Trade and Development Agency (USTDA), and the State Department. USAID’s Regional Development Mission for Asia in Bangkok will manage the program, and will provide technical and coordination support for the entire USG program through a contractor team comprised of US and international technical experts and organizations, including the Asian Disaster Preparedness Center (ADPC).



What types of assistance will the United States provide in supporting development of the regional tsunami warning system?

The US IOTWS program will provide assistance at regional, national, and local levels that addresses hazard detection, prediction, warning, communication, and preparedness. Major program areas include:

- **Technical support to the IOC**—IOC national assessments and institutional support;
- **Regional hazard detection, prediction, and warning formulation**—design and development of observation and communications systems, tsunami warning center capacity building, warning formulation standards and protocols, and data-sharing strategies;
- **National dissemination and communication of warnings**—support for national disaster management organizations, planning, policy and regulations, communications and notification systems, and hazard mapping and modeling;
- **Local knowledge and preparedness to act**—support for a *TsunamiResilient Communities* program and coastal hazards mitigation; and
- **Regional and sub-regional exchange of best practices and lessons learned**—training, educational exchanges, and knowledge-sharing information systems.



Where will the US IOTWS program work?

In addition to support for regional-level warning system components, which involve all 27 IOC members in the Indian Ocean, our work will include targeted technical support to Indonesia, Sri Lanka, India, Thailand, and the Maldives, the five countries most affected by the December 2004 tsunami. Such support will involve both national and local-level contributions to each country's efforts to develop end-to-end warning capabilities.

What are the roles of national and local governments in the system design and implementation?

The US IOTWS program will work closely with each national government to help improve the capacity of national warning centers and systems, improve hazard mapping and modeling capabilities, and strengthen institutional and policy frameworks for disaster management.

At the local level we will work directly with communities to introduce education and preparedness measures, public outreach, and evacuation planning procedures. One key local-level initiative will include introducing a regional *Tsunami Resilient Communities* program in the five focus countries.



Where can I get more information?

Visit the web site at www.iotws.org for information on upcoming activities, progress, and related materials or contact:

Orestes Anastasia

US IOTWS Program Manager
USAID Regional Development Mission/Asia
Tel: +66-2-263-7468
Fax: +66-2-263-7499
[oanastasia@usaid.gov](mailto: oanastasia@usaid.gov)

Dr. Alan White

Chief of Party
Program Integrator (USAID contractor)
Indian Ocean Tsunami Warning System Program
Charter Square Building, Unit 1802
152 North Sathorn Road, Bangrak
Bangkok, 10500 Thailand
Tel: +66-7-921-1003 (cell)
[alanwhitel@verizon.net](mailto: alanwhitel@verizon.net) or [alan.white@ttemi.com](mailto: alan.white@ttemi.com)



USAID | **ASIA**
FROM THE AMERICAN PEOPLE